```
=> d his

     (FILE 'HOME' ENTERED AT 13:12:05 ON 30 SEP 1999)

     FILE 'CA' ENTERED AT 13:12:11 ON 30 SEP 1999
L1            15 S LIBAR?
L2         44043 S LIBRAR?
L3          2075 S L2 AND NUCLEIC ACID
L4             2 S L3 AND BIOACTIVE(5W)(AGENT# OR COMPOUND)
L5          2073 S L3 NOT L4
L6             0 S L5 AND FACS(5W)MACHINE
L7             4 S L5 AND CELL?(5W)PHENOTYPE
```

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> s libar?

L1          15 LIBAR?

=> s librar?

L2       44043 LIBRAR?

=> s l2 and nucleic acid

         81194 NUCLEIC
       2327310 ACID
         51037 NUCLEIC ACID
                 (NUCLEIC(W)ACID)
L3        2075 L2 AND NUCLEIC ACID

=> s l3 and bioactive(5w)(agent# or compound)

          9311 BIOACTIVE
        800106 AGENT#
         47301 COMPOUND
           352 BIOACTIVE(5W)(AGENT# OR COMPOUND)
L4           2 L3 AND BIOACTIVE(5W)(AGENT# OR COMPOUND)

=> d l4 ab


L4   ANSWER 1 OF 2  CA  COPYRIGHT 1999 ACS
AB   Methods and compns. for screening for transdominant effector peptides and
     RNA mols. selected inside living cells from randomized pools are
provided.
     Thus, a nucleic acid library is introduced
     into cells and the cells are screened for cells with altered phenotype,
     said altered phenotype being due to the presence of a transdominant
     bioactive agent encoded by the nucleic
     acid.  The nucleic acid library may
     be introduced by retroviral vector into mammalian cells.  The
     library may encode randomized peptides fused to other
     peptides/proteins, such as presentation sequences, signal sequences,
     membrane-anchoring sequences, and subcellular localization sequences.
     Interleukin-3-dependent cell line Baf/3 was infected with retroviral
     expression vectors contg. nucleic acids encoding 5 X 106 random peptides.
     Cells which are capable of survival upon removal of interleukin-3 from
the
     culture medium contain apoptosis-inhibiting peptides.


=> d l4 1-2


L4   ANSWER 1 OF 2  CA  COPYRIGHT 1999 ACS
AN   127:172233  CA
TI   Method for screening for transdominant effector peptides and RNA
molecules
     capable of altering the phenotype of a cell
IN   Noaln, Garry P.; Rothenberg, S. Michael
PA   Board of Trustees of the Leland Stanford Junior University, USA
SO   PCT Int. Appl., 91 pp.
     CODEN: PIXXD2
DT   Patent
```

LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9727213	A1	19970731	WO 1997-US1048	19970123
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2244222	AA	19970731	CA 1997-2244222	19970123
	AU 9717078	A1	19970820	AU 1997-17078	19970123
	EP 877752	A1	19981118	EP 1997-903068	19970123
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRAI US 1996-589109 19960123
US 1996-589911 19960123
WO 1997-US1048 19970123

L4 ANSWER 2 OF 2 CA COPYRIGHT 1999 ACS
AN 127:172227 CA
TI Method for screening for transdominant effector peptides and RNA molecules
capable of altering the phenotype of a cell
IN Noaln, Garry P.
PA Rigel Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 91 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9727212	A1	19970731	WO 1997-US1019	19970123
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2244222	AA	19970731	CA 1997-2244222	19970123
	AU 9717074	A1	19970820	AU 1997-17074	19970123

PRAI US 1996-589109 19960123
US 1996-589911 19960123
WO 1997-US1019 19970123

=> d l4 2 ab

L4 ANSWER 2 OF 2 CA COPYRIGHT 1999 ACS
AB Methods and compns. for screening for transdominant effector peptides and RNA mols. selected inside living cells from randomized pools are provided.
Thus, a **nucleic acid library** is introduced into cells and the cells are screened for cells with altered phenotype, said altered phenotype being due to the presence of a transdominant **bioactive agent** encoded by the **nucleic acid**. The **nucleic acid library** may be introduced by retroviral vector into mammalian cells. The **library** may encode randomized peptides fused to other

peptides/proteins, such as presentation sequences, signal sequences, membrane-anchoring sequences, and subcellular localization sequences. Interleukin-3-dependent cell line Baf/3 was infected with retroviral expression vectors contg. nucleic acids encoding 5 X 106 random peptides. Cells which are capable of survival upon removal of interleukin-3 from the culture medium contain apoptosis-inhibiting peptides.

PI WO 9941371 A1 19990819 WO 1999-US3166 19990212
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 1998-23992 19980213

L7 ANSWER 2 OF 4 CA COPYRIGHT 1999 ACS
AN 129:226632 CA
TI Methods for identifying **nucleic acid** sequences encoding agents that affect cellular phenotypes
IN Kamb, Carl Alexander; Poritz, Mark A.
PA Ventana Genetics, Inc., USA
SO PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9839483	A1	19980911	WO 1998-US4376	19980227
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5955275	A	19990921	US 1997-812994	19970304
AU 9865438	A1	19980922	AU 1998-65438	19980227

PRAI US 1997-812994 19970304
US 1997-800664 19970214
WO 1998-US4376 19980227

L7 ANSWER 3 OF 4 CA COPYRIGHT 1999 ACS
AN 126:1924 CA
TI Isolation of genetic suppressor elements (GSEs) from random fragment cDNA **libraries** in retroviral vectors
AU Gudkov, Andrei V.; Roninson, Igor B.
CS College Medicine, University Illinois, Chicago, IL, USA
SO Methods Mol. Biol. (Totowa, N. J.) (1997), 69(cDNA Library Protocols), 221-240
CODEN: MMBIED; ISSN: 1064-3745
PB Humana
DT Journal
LA English

L7 ANSWER 4 OF 4 CA COPYRIGHT 1999 ACS
AN 121:155058 CA
TI Characterization of **cell phenotype** by a novel cDNA **library** subtraction system: expression of CD8.alpha. in a mast cell-derived interleukin-4-dependent cell line
AU Hara, Takahiko; Harada, Nobuyuki; Mitsui, Hideki; Miura, Toru; Ishizaka, Teruko; Miyajima, Atsushi
CS Res. Inst. Molecular Cellular Biol., DNAX, Palo Alto, CA, USA
SO Blood (1994), 84(1), 189-99
CODEN: BLOOAW; ISSN: 0006-4971
DT Journal
LA English

elements (GSEs) that induce the desired phenotype by suppression of specific genes. GSEs are short (<500 bp) cDNA fragments that produce a phenotype when expressed in **cells**, this **phenotype** is usually opposite to that of the full-length cDNA from which they are derived. GSEs inhibiting recessive genes behave as dominant selectable markers in gene-transfer protocols and can therefore serve as tools for studying recessive mechanisms. There are two types of GSE: antisense-oriented GSEs encoding efficient inhibitory antisense RNA mols. and sense-oriented GSEs encoding functional protein domains that interfere with the protein function in a dominant fashion. GSEs are isolated by prepg. an expression **library** contg. randomly fragmented DNA of the gene or genes targeted for suppression, introducing this **library** into the appropriate recipient **cells**, selecting **cells** with the desired **phenotype**, recovering the inserts from the expression vectors contained in the selected cells, and testing the recovered sequences for functional activity. A method is described to do so.

L7 ANSWER 4 OF 4 CA COPYRIGHT 1999 ACS
AB The authors have established a unique variant cell line, MC/9.IL-4, which continuously proliferates in the presence of interleukin-4 (IL-4), from a murine interleukin-3 (IL-3)-dependent mast cell line, MC/9 (referred to as MC/9.IL-3). Compared with MC/9.IL-3 cells, MC/9.IL-4 cells are smaller, lack cytoplasmic granules and metachromasia, carry a very small amt. of histamine, and express fewer high-affinity IgE receptors (IgERs) and IL-3 receptors. To further characterize MC/9.IL-4, the authors developed a novel method to enrich cell type-specific cDNAs by cDNA **library** subtraction and applied it for MC/9.IL-3 vs. MC/9.IL-4. Sequence anal. of cDNA clones isolated by this technique showed that MC/9.IL-4 cells specifically express CD8.alpha. and expression of mast cell-specific proteases and major histocompatibility complex class II (MHCII) is considerably decreased. It was also noted that responsiveness to the IL-3-agonistic antibody F9 and expression of the transcription factor GATA-2 is diminished in MC/9.IL-4, indicating that MC/9.IL-4 have lost major characteristics of the bone marrow-derived cultured mast cells. Because other T-cell marker antigens, CD8.beta., CD4, Thy-1, were not detected on MC/9.IL-4 cells, MC/9.IL-4 cells may represent an unknown class of hematopoietic cells that express CD8.alpha.. This cell line will be useful in studies of IL-4-mediated signal transduction, as well as transcriptional regulation of mast cell characteristic genes. This study also demonstrates the effective use of the cDNA **library** subtraction strategy to characterize unknown types of hematopoietic cells at the mol. level.

=> d l7 1-4

L7 ANSWER 1 OF 4 CA COPYRIGHT 1999 ACS
AN 131:140479 CA
TI Use of combinatorial ribozyme **libraries** for determining the function of target genes
IN Keck, James G.; Wong, Justin G. P.
PA Strata Biosciences Incorporated, USA
SO PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

L7 ANSWER 1 OF 4 CA COPYRIGHT 1999 ACS
AB Novel double-stranded DNAs, expression vectors and methods for their use are provided in which the intracellular expression of the double-stranded DNAs is used to alter the phenotype of a target cell so that the function of a target **nucleic acid** that includes a nucleotide sequence encoding a motif of interest can be detd. using a combinatorial ribozyme **library**. The members of the **library** are catalytic RNAs that disrupt the expression of the transcription product of the target **nucleic acid**. The combinatorial ribozyme **library** is designed by analyzing a consensus nucleotide sequence coding for a protein motif of interest. Disruption of transcription product expression results in an altered **cell phenotype** which is used to det. the function of the target **nucleic acid**. The specific phenotype or response may be assocd. with normal cellular processes, or it may contribute to the generation of pathogenesis involved in disease development. The compns. find use in high-throughput screens to assign gene functions. When assocd. with a pathogenic phenotype, these genes or their gene products can constitute therapeutic targets for treatment of diseases. The complete sequence of the gene contg. the target **nucleic acid** need not to be known for the method to be used successfully.

L7 ANSWER 2 OF 4 CA COPYRIGHT 1999 ACS
AB A reporter gene is used to identify sequences affecting a **cellular phenotype**. A method or device is used to measure the level of reporter expression. An expression **library** is introduced into the cells, and those cells exhibiting changes in reporter expression level are selected. Expression **library** inserts from the selected cells are isolated, to create a sub-**library** enriched for sequences that affect the phenotype reflected by the reporter. Further rounds of sub-**library** introduction and cell selection may be carried out to provide addnl. enrichment. Sequences identified using this method may be used to ascertain the identity of addnl. mols. involved in generating the **cellular phenotype**. A plasmid vector expressing the GFP (green fluorescent protein) under control of an .alpha.-factor-responsive element is introduced into yeasts. Under exposure to .alpha.-mating factor, green fluorescent phenotype is obsd. A yeast genomic DNA perturbagen **library** is constructed using a vector coding for the BFP (blue fluorescence protein) fused to the perturbagens downstream of the GAL promoter so that galactose induces BFP and perturbagens (proteins, protein fragments, and peptides that interfere with cellular functions). When both vectors have been inserted into yeast cells, galactose will induce blue fluorescence and the .alpha.-mating factor, green. If a perturbagen interferes with the .alpha.-factor signaling pathway, the green fluorescence will disappear from cells previously shown to exhibit green fluorescence before exposure to galactose. Fluorescence-activated cell sorting app. is used to sep. cells.

L7 ANSWER 3 OF 4 CA COPYRIGHT 1999 ACS
AB The identification and functional anal. of recessive genes in mammalian cells have been boosted by the ability to select genetic suppressor